California Regional Water Quality Control Board
North Coast Region
William R. Massey, Chairman

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Linda S. Adams
Agency Secretary

Arnold Schwarzenegger
Governor

June 8, 2006

Mr. Eric Nelson
U.S. Fish and Wildlife Services
1020 Ranch Road
Loleta, CA 95551

Dear Mr. Nelson:

Subject: Issuance of Clean Water Act Section 401 Certification (Water Quality Certification) for the USFWS, Humboldt Bay National Wildlife Refuge

File: USFWS, Humboldt Bay National Wildlife Refuge
WDID No. 1B05161WNHU

This Order by the California Regional Water Quality Control Board, North Coast Region (Regional Water Board), is being issued pursuant to Section 401 of the Clean Water Act (33 USC 1341); in response to your request (applicant) for Water Quality Certification for the *Salmon Creek Anadromous Salmonid Access, Tide Water Habitat Enhancement and Flood Control Maintenance Project* located in the Humboldt Bay National Wildlife Refuge (Refuge), near Arcata, Humboldt County. On November 22, 2006, the Regional Water Board received your application and a $500.00 processing fee. On April 24, 2006, we posted information describing the project on the Regional Water Board's website for a 21-day public review and comment period. We did not receive any public comments on this project.

Project Description: Salmon Creek and Hookton Slough are part of the Humboldt Bay National Wildlife Refuge (Refuge) located near Arcata, Humboldt County at T3N, R1W, Sections 5 and 6, T4N, R1W, Sections 31 and 32. Salmon Creek and Salmon Creek Estuary drain to Hookton Slough, a tributary of Humboldt Bay. The purpose of the proposed project is to enhance salmonid habitat and access, while implementing flood control. The applicant will replace three existing tidegates, install one new tidegate, and conduct channel maintenance at three locations. The purpose of the tidegate replacements is to increase drainage capacity of the Salmon Creek flood plain, which receives water from 313 acres of private and Refuge land. The proposed project involves dredging.

The dredged materials will be used to build up existing levees and dikes. Refuge lands are a mosaic of tidal, freshwater, and upland habitats, which are managed by the USFWS; all project activities will occur on federal lands.

Tidegate Replacements:
End of Hookton Slough Tidegate
The existing tidegate at the end of Hookton Slough (40*40'31. 45N/124*12'47. 32"W), a 36-inch diameter steel culvert pipe, has

a malfunctioning flap gate. The replacement tidegate is a 48-inch corrugated plastic culvert with a side hinge gate. Installation will involve placement of approximately 50 cubic yards of new washed and sorted gravel and bentonite clay to provide a seal and stabilization. Approximately 400 square feet of existing levee will be excavated to accommodate the larger diameter culvert. Equipment will be staged on an existing dike.

South Bank Tidegate
The existing tidegate at the south bank of Hookton Slough, (40∗ 40'35. 41"N/124*13'06. 88"W), is a 5-foot by 8-foot concrete structure with a top hinge gate. The gate at this site will be replaced with a side-hinged gate with an auxiliary door. No excavation is required at this site, and the existing dike road will be used for equipment staging. Activities associated with tidegate replacements at the end of Hookton Slough and on the south bank of Hookton Slough will occur during low or no flow conditions during one tide cycle.

East Tidegate
The third tidegate to be replaced is located at the east end of Hookton Slough (40*40'47. 03"N/124*13'01. 57"W); conditions at this location will require that the work area be isolated during the tidegate replacement project. This part of the project involves the installation, by pile driver, of a temporary cofferdam constructed of 75 feet of sheet piling to an elevation of 10 feet. The cofferdam installation involves placement of temporary fill, consisting of 60 square feet of native material for backfill, 150 square feet of fabric bags filled with native rock for the interior of the cofferdam, and 38 square feet of sheet pilings for the exterior of the cofferdam. Equipment used to install the cofferdam will work from the existing levee. Water from the work site will be pumped to an approved area behind the levee. The project proponent will use a saw to cut the concrete apron and remove the existing tidegate. Approximately 72 cubic yards of waste concrete from this area will be used to armor the levee north of the Long Pond.

The installation of the new tidegate will include placement of approximately 28 cubic yards of rock slope protection covering 753 square feet on the interior of the levee; this material will be permanent fill. The new tide gate will be a concrete structure with three 6x8-foot chambers. In order to accommodate the tidegate, the applicant will temporarily remove 14 cubic yards of rock slope protection (RSP) and then return the RSP to the slough side of the levee, with a 1:1 transition for the tidegate. A temporary fabric bag cofferdam consisting of 4x4x5-foot bags, filled with native material and covered with geotextile fabric, will be used as an equipment access road.

New Tidegate:
The new tidegate, West Gate (40*40'59. 77"N/124*13'25. 09"W), will involve pile driver installation of approximately 75 feet of a

temporary sheet piling to create a cofferdam to an elevation of 9 feet. The 75 feet of sheet piling is considered temporary fill. The cofferdam will isolate the work area from the tidewater in Hookton Slough. Water from the work site will be pumped to an approved site. USFWS biologists will relocate aquatic life to Hookton Slough. Equipment used to install the cofferdam will be operated from the existing dike. Approximately 360 cubic yards of the levee will be removed to accommodate the new concrete tidegate structure, which has three 6x8-foot chambers. Two of the chambers have side-hinged gates, and the middle chamber has an adjustable top-hinged gate. The adjustable gate allows tidal mixing and continuous fish passage between Hookton Slough and Salmon Creek estuary. Temporary removal of approximately 2.5 tons of rock slope protection will accommodate the installation; it will be replaced on the slough side of the new tidegate and levee. An additional 270 cubic yards of rock slope protection will be excavated from the slough channel to allow for a transition to the new tidegate. A temporary fabric bag cofferdam consisting of 4 x 4x 5-foot bags, filled with native material and covered with geotextile fabric, will be used as an equipment access road. All excavated material from this area will be used to raise the elevation of the interior dike at Cattail Creek on the Refuge. All fill will be placed above the Mean High Water level. Work on the new tidegate is estimated to take 40 days.

Channel Maintenance:
The applicant will conduct channel maintenance activities in three areas in order to increase tidewater habitat and sediment routing. The first area is a 1900-foot section on Salmon Creek, where a break in slope has occurred upstream from the east gate. The channel will be restored to a trapezoidal configuration, approximately 10 feet at the base, 15 feet at the top of the bank, and 6 feet deep, through the removal of 75 cubic yards of sediment. Excavated sediment will be used to increase the elevation of the Cattail Creek dike, located on the northern boundary of the Salmon Creek Unit. The applicant will use an existing road for equipment access. The last two channel maintenance areas are two drainage outlets adjacent to Salmon Creek that have filled with sediment. The applicant will dredge approximately 250 cubic yards of sediment from a 50-foot length of channel, restoring the channel to the previous dimensions of 3 x 8 x 2.5 feet. The maintenance activities will improve outlet drainage between these two adjacent wetlands and the main channel, expanding estuary habitat area and improving tidal circulation.

The applicant indicates that all excavation activities will occur in dewatered channels; two of the tidegate replacements will occur during a single low tide cycle to avoid impacts to Waters of the United States. No equipment will be operated in tidal waters. Silt fencing will be used in Salmon Creek below channel excavation sites to prevent sediment transport. If silt fencing does not adequately contain sediment generated by the construction activity,

all activity will be suspended until other measures can be implemented. Salvaged concrete will be used as revetment on the existing levee. Construction will occur during the low flow and dry season, typically between July 1 and October 31. The applicant estimates that construction of the new and the replacement tidegates will take 40 days each for completion. The new west tidegate will be constructed first, allowing for the diversion of Salmon Creek through this tidegate. The replacement of both single barrel/chamber tidegates will occur during a single low tide cycle. Replacement of the single barrel/chamber tide gates located at the end of Hookton Slough and on the south bank levee of Hookton slough is expected to take a single day, and will be conducted during a period of no runoff and at low tide. Therefore, work at these two sites will not require the installation of flow barriers or fish barriers, nor will it involve dewatering of the work areas. Excavation of the knick point in Salmon Creek and wetland channel outlets will occur at the end of the work season in October.

Receiving Waters: Salmon Creek and Hookton Slough associated with Humboldt Bay in the Eureka Plain Hydrologic Unit No. 110.00.

Filled or Excavated Area: Area Temporarily Impacted: 0.25 acre riparian and tidewater channel bed

Area Permanently Impacted: 0.09-acre tidewater channel bed
Total Area Impacted: 0.34 acre

Federal Permit: U.S. Army Corps of Engineers Nationwide Permit 27 *Stream and Wetland Restoration Activities* Permit

Compensatory Mitigation: None required for this project.

Noncompensatory Mitigation: Noncompensatory mitigation measures include Best Management Practices (BMP) to prevent or minimize impacts to Waters of the United States from construction related erosion, stormwater runoff, or accidental spills associated with equipment, as described in Section 3 of the "*California Stormwater Best Management Practices Handbook*. Silt fencing will be installed along the perimeter of the temporary stockpile areas to prevent runoff from leaving the site. All cofferdams used for temporary access will be removed as soon as they are no longer needed.

Salmon Creek, supports several listed fish species: Coho salmon, Chinook salmon, tidewater goby, steelhead, and coastal cutthroat trout, a California species of concern. Authorized biologists will place a temporary fish barrier or screen in Salmon Creek, during an ebb tide, above the knick point work site. The biologist will net and move any fish present, relocating them downstream of the fish barrier/screen. Any fish that may be present in an overflow area will be moved out of the area and relocated before construction of

cofferdams. A qualified botanist will survey for plant species of concern in the areas proposed for use as temporary access and staging. If such plants are found, the access and staging areas will be located to avoid these plants. If avoidance is not possible, these plants will be excavated and stored appropriately for replanting during restoration of the access and staging areas. The fish biologist will identify, record, and report to appropriate fisheries agencies all fish captured and relocated, or the occurrence of any mortality. A qualified botanist will survey for plant species of concern in the areas proposed for use as temporary access and staging. Several photographic points will be established to document all work performed. Photographs will be taken at a sufficient frequency to document each stage of work. The California Department of Fish and Game determined that the project does not require a Lake or Streambed Alteration Agreement (1600 Permit).

CEQA Compliance: The Humboldt Bay Harbor, Recreation and Conservation District, as lead California Environmental Quality Act (CEQA) agency, has prepared a Notice of Exemption with the State Office of Planning and Research for this project. The CEQA Categorical Exemptions are for *Replacement and Reconstruction*, Class 2 Section 15302, *Minor Alterations to Land*, Class 4 Section 15304(d), and *Small Habitat Restoration,* Title 14, Class 33, Section 15333.

Standard Conditions: Pursuant to Title 23, California Code of Regulations, Section 3860 (23 CCR 3860), the following three standard conditions shall apply to this project:

1) This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Section 13330 of the California Water Code and 23 CCR 3867.

2) This certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.

3) The validity of any nondenial certification action (actions 1 and 2) shall be conditioned upon total payment of the full fee required under 23 CCR 3833, unless otherwise stated in writing by the certifying agency.

Additional Conditions: Pursuant to 23 CCR 3859(a), the applicant shall comply with the following additional conditions:

1) The applicant shall notify Regional Water Board staff at least five working days (working days are Monday – Friday) prior to the commencement of the project, with details regarding

the schedule of operations, to allow staff the opportunity to be present onsite and to answer any public inquiries that may arise regarding the project.

2) A copy of this permit must be provided to all contractors and subcontractors conducting work on this project, and a copy must be in their possession at the work site. It is the applicant's responsibility to ensure that the contractor and all subcontractors are provided a copy of this permit.

3) Adequate Best Management Practices for sediment and turbidity control shall be implemented and in place during and after construction in order to ensure that no silt or sediment enters surface waters.

4) If, at any time, an unauthorized discharge to surface waters occurs, or any water quality problem arises, the project shall cease immediately and Regional Water Board staff shall be notified promptly.

5) No debris, bark, slash, sawdust, rubbish, cement or concrete washings, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, other than that authorized by this permit, shall be allowed to enter into or be placed where it may be washed by rainfall into waters of the State.

6) The Applicant shall comply with the State Water Resources Control Board's General Permit for Storm Water Discharges Associated with Construction Activities and shall implement an adequate Storm Water Pollution Prevention Plan.

7) Fueling, lubrication, maintenance, storage and staging of vehicles and equipment shall be outside of waters of the United States and shall not result in a discharge or a threatened discharge to waters of the United States. At no time shall the applicant use any vehicle or equipment, which leaks any substance that may impact water quality.

8) Project activities shall comply with provisions in the North Coast Region Water Quality Control Plan (Basin Plan).

9) The project site may be visited and assessed by Regional Water Board staff to document compliance with this certification.

10) All activities and Best Management Practices will be conducted as described in this Permit and the application for this project.

11) This Order is not transferable. In the event of any change in control of ownership of land presently owned or controlled by the applicant, the applicant shall notify the successor-in-interest of the existence of this Order by letter and shall

forward a copy of the letter to the Regional Water Board at the above address.

To discharge dredged or fill material under this Order, the successor-in-interest must send to the Regional Water Board Executive Officer a written request for transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, address, and telephone number of the person(s) responsible for contact with the Regional Water Board. The request must also describe any changes to the Project proposed by the successor-in-interest or confirm that the successor-in-interest intends to implement the Project as described in this Order.

Water Quality Certification: I hereby issue an order [23 CCR Subsection 3831(e)] certifying that any authorized discharge from the USFWS, Humboldt Bay National Wildlife Refuge Project (Facility No. 1B05161WNHU) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 (" Toxic and Pretreatment Effluent Standards") of the Clean Water Act [33 USC Subsection 1341 (a)(1)], and with other applicable requirements of State law. This discharge is also regulated under State Water Resources Control Board Order No. 2003 - 0017 - DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification" which requires compliance with all conditions of this Water Quality Certification.

Except as may be modified by any preceding conditions, all certification actions are contingent on: a) the discharge being limited and all proposed mitigation being completed in strict compliance with the applicant's project description, and b) compliance with all applicable requirements of the Regional Water Board's Water Quality Control Plan for the North Coast Region (Basin Plan).

Expiration: The authorization of this certification for any dredge and fill activities expires on June 8, 2011. Conditions and monitoring requirements outlined in this certification are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

Please notify Diana Henrioulle of our staff at (707) 576-2350 prior to construction (pursuant to Additional Condition No. 1 above) so that we can answer any public inquiries about the work.

Sincerely,

Catherine Kuhlman
Executive Officer

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Enclosure:
State Water Resources Control Board Order No. 2003-0017 - DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification"

cc: Ms. Jane Hicks, U.S. Army Corps of Engineers, Regulatory Functions, 333 Market Street, San Francisco, CA 94599
U.S. Army Corps of Engineers, District Engineer, P.O. Box 4863, Eureka, CA 95502
Aldaron Laird, Environmental Planner, 980 7th Street, Suite K, Arcata, CA 95521